



*Spa* 1637

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Our Case No. 01-661-A)**

In re Application of: )  
Mirkin, et al. ) Examiner: T. Strzelecka  
Serial No. 10/034,451 ) Group Art Unit: 1637  
Filed: December 28, 2001 ) Confirmation No.: 9317  
For: Non-Alloying Core Shell Nanoparticles )

**TRANSMITTAL LETTER**

Mail Stop: Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

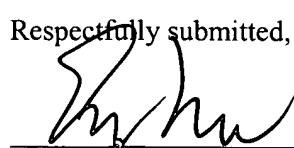
Sir:

In regard to the above identified application.

1. We are transmitting herewith the attached:
  - a) Thirteenth Supplemental Information Disclosure Statement;
  - b) U.S. PTO 1449 Form with copies of references 1-55; and
  - c) Return Postcard.
2. With respect to fees:
  - a) No fee is due.
  - b) General Authorization: Please charge any underpayment or credit any overpayment our Deposit Account No. 13-2490.
3. CERTIFICATE OF MAILING UNDER 37 CFR § 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop ~~Amendment~~, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 8 day of August, 2005.

Respectfully submitted,

Date: Aug. 8, 2005

  
Emily Miao  
Registration No. 35,285



## PATENT

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## THIRTEENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In order to comply with discretionary regulations 37 CFR §§1.97 and 1.98, attached hereto is Form PTO-1449, copies<sup>1</sup> of the documents listed thereon. These documents contain information which the Examiner may consider to be important in deciding whether to allow the present application to issue as a patent.

1. Carla M. Aguirre, Cristin E. Moran, James F. Young, and Naomi J. Halas, "Laser-Induced Reshaping of Metallodielectric Nanoshells under Femtosecond and Nanosecond Plasmon Resonant Illumination", *J. Phys. Chem. B*, Vol. 108, 7040-7045 (2004).
2. Carla M. Aguirre, Tara R. Kaspar, Corey Radloff, and Naomi J. Halas, "CTAB Mediated Reshaping of Metallodielectric Nanoparticles", *Nano Letters*, Vol. 3, No. 12, 1707-1711 (2003).
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4. R. D. Averitt, S. L. Westcott, and N. J. Halas, "Linear optical properties of gold nanoshells", *J. Opt. Soc. Am. B.*, Vol. 16, No. 10, 1824-1832 (1999).

<sup>1</sup>To the extent that a document is listed and no copy of same is attached, then such document is not at the present time available to the undersigned or is available in the file of a parent application. If a listed document is not in the English language and an English translation is readily available, such translation is also attached; if translation is not attached it is not readily available to the undersigned. If a foreign language patent document is cited, and an English language equivalent is known to the undersigned, then such equivalent patent is also cited on the attached form along with the corresponding foreign language patent and a connecting arrow indicated therebetween; if no such English language equivalent is cited, then none is known to undersigned.

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| 5.  | R. D. Averitt, S. L. Westcott and N. J. Halas, "Ultrafast Electron Dynamics in Gold Nanoshells", <i>Phys. Rev. B</i> , Vol. 58, R10203-R10206 (1998).   |
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| 7.  | N.K. Grady, N.J. Halas, and P. Nordlander, "Influence of dielectric function properties on the optical response of plasmon resonant metallic nanoparticles", <i>Chem. Phys. Lett.</i> , Vol. 399, 167-171 (2004).   |
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| 20. | K. F. Kelly, I. W. Chiang, E. T. Mickelson, R. H. Hauge, J. L. Margrave, X. Wang, G. E. Scuseria, C. Radloff, N. J. Halas, "Insight into the mechanism of sidewall functionalization of single-walled nanotubes: an STM study," <i>Chem. Phys. Lett.</i> , Vol. 313, 445-450 (1999).                                    |
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| 51. | S. L. Westcott and N. J. Halas, "Electron Relaxation Dynamics in Semicontinuous Metal Films on Nanoparticle Surfaces", <i>Chem. Phys. Lett.</i> , Vol. 356, 207-213 (2002).  |
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| 55. | D. B. Wolfe, S. J. Oldenburg, S. L. Westcott, J. B. Jackson, M. S. Paley, and N. J. Halas, "Preparation and characterization of polymer-coated nanoparticles," <i>SPIE Proceedings</i> , Vol. 3793, 129-137 (1999).              |
| 56. | C. Radloff, C.E. Moran, J.B. Jackson and N.J. Halas, "Nanoparticles: Building Blocks for Functional Nanostructures" in <i>Molecular Nanoelectronics</i> , Mark Reed and Takhee Lee, eds., American Scientific Publishers (2003). |

In accordance with MPEP Sections 609 and 707.05(b), it is requested that each document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider a cited document to be sufficiently pertinent to use in a rejection, or otherwise does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application.

The present Disclosure Statement is being submitted in compliance with 37 CFR 1.56 insofar as an Examiner might consider any of the cited documents important in deciding whether to allow the application to issue as a patent, but the citation of each document is not to be construed as an admission that such document is necessarily relevant or prior art. No representation is intended that the cited documents represent the

results of a complete search, and it is anticipated that the Examiner, in the normal course of examination, will make an independent search and will determine the best prior art consistent with 37 CFR 1.104(a) and 1.106(b) and, in the course of each search, will review for relevance every document cited on the attached form even if not initialed.

Early and favorable consideration is earnestly solicited.

Respectfully submitted,

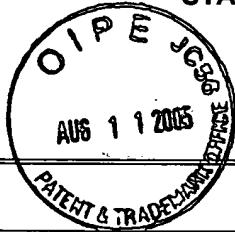


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Dated: Aug. 8, 2005

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|--|--|-----------------------------------|--------------------------|
| Form PTO-1449  | U.S. Department of Commerce<br>Patent and Trademark Office | Atty. Docket No.<br>01-661-A      | Serial No.<br>10/034,451 |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b> |  | Applicant: Mirkin, et al.         |                          |
|  |  | Filing Date:<br>December 28, 2001 | Group: 1637              |

**U.S. PATENT DOCUMENTS**

| Examiner Initial | Document Number | Date | Name | Class | Subclass | Filing Date |
|------------------|-----------------|------|------|-------|----------|-------------|
|                  |                 |      |      |       |          |             |

**FOREIGN PATENT DOCUMENTS**

|  | Document Number | Date | Country | Class | Subclass | Translation<br>Yes<br>No |
|--|-----------------|------|---------|-------|----------|--------------------------|
|  |                 |      |         |       |          |                          |

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

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| 1.  | Carla M. Aguirre, Cristin E. Moran, James F. Young, and Naomi J. Halas, <u>"Laser-Induced Reshaping of Metallodielectric Nanoshells under Femtosecond and Nanosecond Plasmon Resonant Illumination"</u> , <i>J. Phys. Chem. B</i> , Vol. 108, 7040-7045 (2004).                          |
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|  |  | Filing Date:<br>December 28, 2001 | Group: 1637              |

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